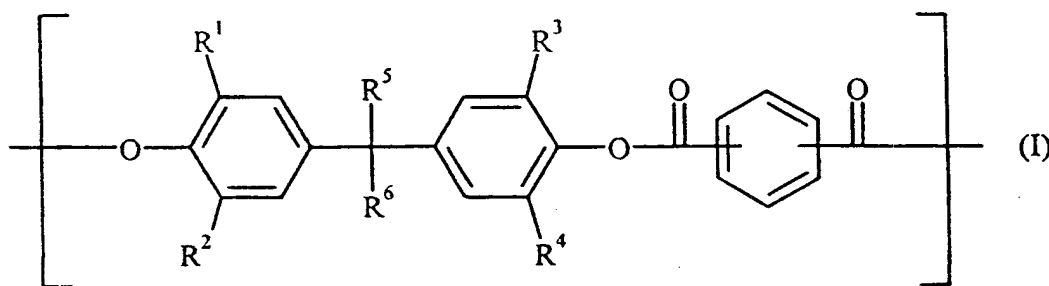


Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A thermoformed diaphragm made of cast polyarylate film, at least comprising one polyarylate having a structural unit of the formula:



where each of R^1 , R^2 , R^3 , and R^4 , independently of the others, is hydrogen, C_{1-4} -alkyl, C_{1-4} -alkoxy, or halogen, and each of R^5 and R^6 , independently of the other, is hydrogen, C_{1-4} -alkyl, C_{1-4} -alkoxy, phenyl, or halogen.

Claim 2 (currently amended): The thermoformed diaphragm as claimed in claim 1, ~~wherein characterized in that~~ $R^1 = R^2$ and $R^3 = R^4$, and each, independently of the others, is hydrogen or C_{1-4} -alkyl.

Claim 3 (currently amended): The thermoformed diaphragm as claimed in claim 2, ~~wherein characterized in that~~ $R^1 = R^2 = R^3 = R^4$ and are each hydrogen or C_{1-4} -alkyl.

Claim 4 (currently amended): The thermoformed diaphragm as claimed in ~~at least one of claims 1 to 3, characterized in that~~ claim 1, wherein each of R⁵ and R⁶, independently of the other, is C₁₋₄-alkyl, ~~particularly preferably methyl.~~

Claim 5 (currently amended): The thermoformed diaphragm as claimed in ~~at least one of claims 1 to 4 in~~ claim 4 has a thickness of from 5 to 200 µm, ~~preferably from 5 to 100 µm.~~

Claim 6 (currently amended): ~~The use of~~ A process comprising utilizing the thermoformed diaphragms as claimed in ~~claims 1 to~~ claim 5 as diaphragms for acoustic transducers for acoustic applications, ~~preferably as microphone diaphragms and/or loudspeaker diaphragms.~~

Claim 7 (currently amended): ~~The use~~ process as claimed in claim 6 in microphone capsules, mobile telephones, hands-free systems, radio sets, hearing devices, headphones, microradios, computers, PDAs, and/or signal generators.

Claim 8 (currently amended): A casting solution and/or a cast film produced therefrom, composed of polyarylate of the formula (I) of claim 1, ~~characterized in that~~ wherein it comprises a dye, and/or comprises a nonionic polyol surfactant.

Claim 9 (currently amended): The polyarylate casting solution and/or cast polyarylate film produced therefrom as claimed in claim 8, ~~characterized in that~~ wherein the nonionic polyol surfactant is selected from the group consisting of poly(ethylene glycol), poly(propylene glycol), and poly(tetramethylene oxide), and is ~~used~~ utilized in the form of homopolymer, copolymer, block copolymer, or a mixture of these, ~~preferably in the form of polyethylene-polypropylene block copolymer.~~

Claim 10 (currently amended): The polyarylate casting solution and/or cast polyarylate film produced therefrom as claimed in claim 8 or 9, ~~characterized in that~~ wherein it comprises a dye such as "C.I. Solvent Yellow 93", 93, "Solvent Yellow 202", 202, or Macrolex® Orange R", R, and/or comprises a nonionic polyol surfactant, ~~such as "Pluronic® PE 6 800" or "Synperonic® F86 pract."~~.

Claim 11 (currently amended): The polyarylate casting solution and/or cast polyarylate film produced therefrom as claimed in ~~at least one of claims 8 to 10,~~ characterized in that wherein the amount of the dye and/or of the nonionic surfactant present is from 0.001 to 2%, ~~preferably from 0.001 to 0.15%~~ 2 percent.

Claim 12 (currently amended): The polyarylate casting solution as claimed in ~~at least one of claims 8 to 11, characterized in that~~ claim 11, wherein it comprises an amount of at least 40% 10 percent ~~preferably from 15 to 25%, and particularly preferably from 20 to 24%,~~ of the polyarylate.

Claim 13 (currently amended): A process for producing thermoformed diaphragms as claimed in ~~claims 1 to 5~~ claim 1 from cast polyarylate films ~~as claimed in claims 9 to 11, characterized in that~~ also contain a dye and/or a nonionic polyol surfactant wherein the cast polyarylate films are heated through irradiation with infrared light, where appropriate after a preparatory process, ~~such as roll cutting,~~ and are then deformed by means of thermoforming to give diaphragms, and ~~are then,~~ where appropriate, subjected to finishing processes.

Claim 14 (currently amended): The process for producing cast polyarylate films as claimed in ~~claims 8 to 11, characterized in that~~ claim 8 wherein the polyarylate

casting solutions ~~as claimed in claims 9 to 12~~ are applied to a substrate, are peeled away from this substrate after a predrying period, and are then dried fully.

Claim 15 (currently amended): The process as claimed in claim 14, ~~characterized in that~~ wherein the polyarylate casting solutions are applied to a continuous substrate, ~~particularly preferably a steel belt which is matt or polished on one side, or a polished or matt stainless steel roll of circumference from 5 to 25 m.~~

Claim 16 (currently amended): The process as claimed in ~~claim 14 or 15~~ ~~characterized in that~~ claim 14, wherein the polyarylate casting solutions are applied to an intermediate film conducted on the substrate and, after a predrying period, are peeled away together with the intermediate film from this substrate, and are then dried fully.

Claim 17 (currently amended): The process as claimed in claim 16, ~~characterized in that~~ wherein the intermediate film used comprises a polyethylene terephthalate film.

Claim 18 (currently amended): The process as claimed in ~~at least one of claims 14 to 17,~~ ~~characterized in that~~ claim 17, wherein the average thickness of the cast polyarylate films after final drying is from 5 to 200 μm .

Claim 19 (currently amended): The process as claimed in ~~any of claims 14 to 18,~~ ~~characterized in that use is also made of~~ claim 14 wherein a solution-application or lamination process is utilized to coat the cast polyarylate films ~~as claimed in claims 8 to 11.~~

Claim 20 (new): The thermoformed diaphragm as claimed in Claim 4, wherein each of R^5 and R^6 is methyl.

Claim 21 (new): The thermoformed diaphragm as claimed in claim 3, wherein each of R⁵ and R⁶, independently of the other, is C₁₋₄-alkyl.

Claim 22 (new): The thermoformed diaphragm as claimed in claim 5 has a thickness of 5 to 100 μm.

Claim 23 (new): The thermoformed diaphragm as claimed in claim 1 has a thickness of from 5 to 200 μm.

Claim 24 (new): The process as claimed in claim 5, wherein the thermoformed diaphragms are utilized as microphone diaphragms and/or loudspeaker diaphragms.

Claim 25 (new): The process comprising utilizing the thermoformed diaphragms as claimed in claim 1 as diaphragms for acoustic transducers for acoustic applications.

Claim 26 (new): The polyarylate casting solution and/or cast polyarylate film produced therefrom as claimed in claim 8, wherein the nonionic polyol surfactant is selected from the group consisting of poly(ethylene glycol), poly(propylene glycol), and poly(tetramethylene oxide), and is utilized in the form of polyethylene-polypropylene block copolymer.

Claim 27 (new): The polyarylate casting solution and/or cast polyarylate film produced therefrom as claimed in claim 8, wherein it comprises "Pluronic® PE 6 800" or "Synperonic® F86 pract."

Claim 28 (new): The polyarylate casting solution and/or cast polyarylate film produced therefrom as claimed in claim 8, wherein it comprises a dye such as "C.I. Solvent Yellow 93," "Solvent Yellow 202," or "Macrolex® Orange R," and/or comprises a nonionic polyol surfactant.

Claim 29 (new): The polyarylate casting solution and/or cast polyarylate film produced therefrom as claimed in claim 10, wherein the amount of the dye and/or of the nonionic surfactant present is from 0.001 to 0.15 percent.

Claim 30 (new): The polyarylate casting solution and/or cast polyarylate film produced therefrom as claimed in claim 8, wherein the amount of the dye and/or of the nonionic surfactant present is from 0.001 to 2 percent.

Claim 31 (new): The process as claimed in Claim 13, wherein the preparatory process is roll cutting.

Claim 32 (new): The process as claimed in claim 13, wherein the nonionic surfactant is selected from the group consisting of poly(ethylene glycol), poly(propylene glycol), and poly(tetramethylene oxide), and is utilized in the form of homopolymer, copolymer, block copolymer, or a mixture of these.

Claim 33 (new): The process as claimed in claim 14, wherein the polyarylate casting solutions are applied to a continuous substrate that is a steel belt that is matt or polished on one side, or that is a polished or matt stainless steel roll of circumference from 5 to 25 m.

Claim 34 (new): The process as claimed in claim 14, wherein the average thickness of the cast polyarylate films after final drying is from 5 to 200 μm .